WHAT IS CLAIMED IS:

1. A compound that comprises the reaction product of a highly branched polymer having terminal functional groups and a lactone, wherein the highly branched polymer is the step-growth polymerization reaction product of a polyfunctional first monomer having a first functional group and a polyfunctional second monomer having a second functional group wherein the first and second functional groups will react with each other but not themselves, and wherein the polymer is not a polyester.

2. The compound of Claim 1, wherein the first monomer comprises at least one amine and the second monomer comprises at least one carboxylic acid.

3. The compound of Claim 2, wherein the amine comprises ethylene diamine and the carboxylic acid comprises trimellitic anhydride.

4. The compound of Claim 1, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one alcohol.

5. The compound of Claim 4, wherein the isocyanate comprises isophorone diisocyanate and the alcohol comprises trimethylol propane.

6. The compound of Claim 1, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one amine.

7. The compound of Claim 6, wherein the isocyanate comprises the isocyanurate of isophorone diisocyanate and the amine comprises ethylene diamine.

8. The compound of Claim 1, wherein the highly branched polymer has a number average molecular weight of 500 to 10,000.

9. The compound of Claim 1, wherein the terminal functional group is a hydroxy group.

10. The compound of Claim 1, wherein the terminal functional group is an amine.

11. The compound of Claim 1, wherein 1 to 100 percent of the terminal functional groups have a lactone grafted thereto.

12. The compound of Claim 11, wherein greater than 90 percent of the terminal functional groups have a lactone grafted thereto.

13. The compound of Claim 1, wherein the reaction product of the highly branched polymer and the lactone has a weight average molecular weight of 5,000 to 500,000.

14. The compound of Claim 1, wherein the lactone comprises epsilon-caprolactone.

15. The compound of Claim 1, wherein the reaction product of the highly branched polymer and the lactone comprises lactone chains comprising 1 to 50 lactone derived units.

16. A compound that comprises the reaction product of a highly branched polymer having terminal amine functional groups and a lactam, wherein the highly branched polymer is the step-growth polymerization reaction product of a polyfunctional first monomer having a first functional group and a polyfunctional second monomer having a second functional group wherein the first and second functional groups will react with each other but not themselves.

17. The compound of Claim 16, wherein the first monomer comprises at least one amine and the second monomer comprises at least one carboxylic acid.

18. The compound of Claim 17, wherein the amine comprises ethylene diamine and the carboxylic acid comprises trimellitic anhydride.

19. The compound of Claim 16, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one amine.

20. The compound of Claim 19, wherein the isocyanate comprises the isocyanurate of isophorone diisocyanate and the amine comprises ethylene diamine.

21. The compound of Claim 16, wherein the highly branched polymer has a number average molecular weight of 500 to 10,000.

22. The compound of Claim 16, wherein 1 to 100 percent of the terminal functional groups have a lactam grafted thereto.

23. The compound of Claim 16, wherein greater than 90 percent of the terminal functional groups have a lactam grafted thereto.

24. The compound of Claim 16, wherein the reaction product of the highly branched polymer and the lactam has a weight average molecular weight of 5,000 to 500,000.

25. The compound of Claim 17, wherein the lactam comprises epsilon-caprolactam.

26. A curable powder coating composition comprising:

(a) a compound that comprises the reaction product of a highly branched polymer having terminal functional groups and a lactone, wherein the highly branched polymer is the step-growth polymerization reaction product of a polyfunctional first monomer having a first functional group and a polyfunctional second monomer having a second functional group wherein the first and second functional groups will react with each other but not themselves; and

(b) a crosslinker.

27. The curable powder coating composition of Claim 26, wherein the first monomer is at least one alcohol and the second monomer is at least one carboxylic acid.

28. The curable powder coating composition of Claim 27, wherein the alcohol comprises trimethylol propane and the carboxylic acid comprises adipic acid.

29 The compound of Claim 26, wherein the first monomer comprises at least one amine and the second monomer comprises at least one carboxylic acid.

30 The compound of Claim 29, wherein the amine comprises ethylene diamine and the carboxylic acid comprises trimellitic anhydride.

31. The compound of Claim 26, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one alcohol.

32. The compound of Claim 31, wherein the isocyanate comprises isophorone diisocyanate and the alcohol comprises trimethylol propane.

33. The compound of Claim 26, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one amine.

34. The compound of Claim 33, wherein the isocyanate comprises the isocyanurate of isophorone diisocyanate and the amine comprises ethylene diamine.

35. The compound of Claim 26, wherein the highly branched polymer has a number average molecular weight of 500 to 10,000.

36. The compound of Claim 26, wherein the terminal functional group is a hydroxy group.

37. The compound of Claim 26, wherein the terminal functional group is an amine.

38. The compound of Claim 26, wherein 1 to 100 percent of the terminal functional groups have a lactone grafted thereto.

39. The compound of Claim 38, wherein greater than 90 percent of the terminal functional groups have a lactone grafted thereto.

40. The compound of Claim 26, wherein the reaction product of the highly branched polymer and the lactone has a weight average molecular weight of 5,000 to 500,000.

41. The compound of Claim 26, wherein the lactone comprises epsilon-caprolactone.

42. The compound of Claim 26, wherein the reaction product of the highly branched polymer and the lactone comprises lactone chains comprising 1 to 50 lactone derived units.

43. The curable powder coating composition of Claim 26, further comprising a film forming resin.

44. The curable powder coating composition of Claim 43, wherein the film forming resin is hydroxy functional.

45. The curable powder coating composition of Claim 43, wherein the film forming resin is present in an amount of 50 weight percent or greater, based on total weight of the composition.

46. A curable powder coating composition comprising:

(a) the reaction product of a highly branched polymer having terminal amine functional groups and a lactam, wherein the highly branched polymer is the step-growth polymerization reaction product of a polyfunctional first monomer having a first functional group and a polyfunctional second monomer having a second functional group wherein the first and second functional groups will react with each other but not themselves; and

(b) a crosslinker.

47. The compound of Claim 46, wherein the first monomer comprises at least one amine and the second monomer comprises at least one carboxylic acid.

48. The compound of Claim 47, wherein the amine comprises ethylene diamine and the carboxylic acid comprises trimellitic anhydride.

49. The compound of Claim 46, wherein the first monomer comprises at least one isocyanate and the second monomer comprises at least one amine.

50. The compound of Claim 49, wherein the isocyanate comprises the isocyanurate of isophorone diisocyanate and the amine comprises ethylene diamine.

51. The compound of Claim 46, wherein the highly branched polymer has a number average molecular weight of 500 to 10,000.

52. The compound of Claim 46, wherein 1 to 100 percent of the terminal functional groups have a lactam grafted thereto.

53. The compound of Claim 46, wherein greater than 90 percent of the terminal functional groups have a lactam grafted thereto.

54. The compound of Claim 46, wherein the reaction product of the highly branched polymer and the lactam has a weight average molecular weight of 5,000 to 500,000.

55. The compound of Claim 47, wherein the lactam comprises epsilon-caprolactam.

56. The curable powder coating composition of Claim 26, further comprising a film forming resin.

57. The curable powder coating composition of Claim 43, wherein the film forming resin is hydroxy functional.

58. The curable powder coating composition of Claim 43, wherein the film forming resin is present in an amount of 50 weight percent or greater, based on total weight of the composition.

59. The curable powder coating composition of Claim 26, wherein said coating composition does not contain moieties curable by UV radiation.

60. The curable powder coating composition of Claim 46, wherein said coating composition does not contain moieties curable by UV radiation.